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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/607,914	06/27/2003	Andy Harjanto	13768.604.21	8127
47973 7590 03/16/2007 WORKMAN NYDEGGER/MICROSOFT 1000 EAGLE GATE TOWER 60 EAST SOUTH TEMPLE SALT LAKE CITY, UT 84111			EXAMINER DAYE, CHELCIE L	
			ART UNIT 2161	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/607,914

Applicant(s)

HARJANTO, ANDY

Examiner

Chelcie Daye

Art Unit

2161

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4, 6-11, 13, 15-18, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-11, 13, 15-18, and 22-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This action is issued in response to applicant's amendment filed October 31, 2006.
2. Claims 1-4,6-11,13,15-18,and 22-23 are presented. Claims 5,12,14,and 19-21 remain cancelled and no claims were added.
3. Claims 1-4,6-11,13,15-18,and 22-23 are pending.
4. Applicant's arguments filed October 31, 2006, have been fully considered but they are not persuasive.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. **Claims 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Chang (US Patent No. 5,627,979) issued May 6, 1997.**

Regarding Claim 22, Chang discloses a graphical mapping tool for associating a property of a class with an attribute of a schema class of a repository schema, the mapping tool comprising computer-executable instructions which, when executed, enable a method comprising:

presenting a first graphical user interface displaying a plurality of selectable object classes and displaying a plurality of selectable schema classes (Figs.11-15, Chang);

receiving input to the first graphical user interface selecting an object class from the plurality of object classes and selecting a schema from the plurality of schema classes (column 13, lines 21-54, Chang);

in response to the selection of the object class and schema class, presenting a second graphical user interface displaying the properties of the object class and the attributes of the schema class (Fig.17; column 13, lines 55-60, Chang);

receiving input to the second user interface selecting a property from the properties of the object class and selecting an attribute from the attributes of the schema class (columns 13-14, lines 60-67 and 1-11, respectively, Chang);

in response to the input received to the second user interface, mapping the selected property to the selected attribute (column 14, lines 16-29, Chang);  
and

in response to the mapping, inserting metadata within a definition of the selected object class, the metadata associating the selected object property with the selected schema attribute (column 14, lines 30-53, Chang).

Regarding Claim 23, Chang discloses a mapping tool wherein the second graphical user interface is only presented after first receiving user input selecting said at least one selectable object class and said at least one selectable schema class from the graphical user interface (column 13, lines 55-66, Chang).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-4,6,9-11,13,and 15-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parvathaneny (US Patent No. 5,829,006) filed July 21, 1997, in view of Van Huben (US Patent No. 6,484,177) filed January 13, 2000.**

Regarding Claim 1, Parvathaneny discloses a method for enabling access to a data repository, wherein data contained within the repository is organized according to at least an implicit or explicit schema defining at least one schema class having therein at least one schema attribute (column 7, lines 17-28, Parvathaneny), from an application, the application utilizing object oriented

programming (column 3, lines 57-64, Parvathaneny) including an object class having an object property different in format than the corresponding at least one schema class and schema attribute utilized by the data repository (column 5, lines 21-31, Parvathaneny), the method comprising:

providing an interface interposed between the object-oriented application and the data repository (columns 3-4, lines 65-67 and 1-2, respectively, Parvathaneny)<sup>1</sup>;

receiving from the application, at the interface, an access command, wherein the access command identifies an object class and an object property of the object class in a format specific to the application (column 3, lines 36-44 and lines 57-64, Parvathaneny) but which format is different than a format utilized by the repository to define a corresponding schema class and schema attribute (column 5, lines 21-31, Parvathaneny);

translating, at the interface, the access command to a reformatted access command using the syntax and schema of the data repository, wherein the translated access command identifies the schema class and the schema attribute of the data repository which corresponds to the object class and the object property within the application (column 5, lines 21-42 and column 9, lines 46-52, Parvathaneny)<sup>2</sup>, wherein translating the access command to a reformatted access command comprises:

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<sup>1</sup> Examiner Notes: The gateway corresponds to the interface.

<sup>2</sup> Examiner Notes: The gateway includes the query generator and the translator (i.e. object generator) (column 4, lines 13-15, Parvathaneny), which therefore discloses the limitation of "translating, at the interface".

at least one of reading a mapping, accessible to the interface, of object class and object property information to schema class and schema attributes (column 6, lines 17-46, Parvathaneny)<sup>3</sup>, or reading metadata contained within the object class that identifies the object class and property of the object class that links the object class and object property of the object class to the corresponding schema class and schema attribute within the data repository. However, Parvathaneny is silent with respect to the data repository including any combination of relational databases and directory services, and reformatting the access command into a command using the proper syntax and schema understood by the data repository and which can be serviced directly by the repository. On the other hand, Van Huben discloses to the data repository including any combination of relational databases and directory services (column 4, lines 46-53, Van Huben), and reformatting the access command into a command using the proper syntax and schema understood by the data repository and which can be serviced directly by the repository (column 17, lines 10-33, Van Huben). Parvathaneny and Van Huben are analogous art because they are from the same field of endeavor of data management. It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Van Huben's teachings into the Parvathaneny system. A skilled artisan would have been motivated to combine as suggested by Van Huben at column 1, lines 48-54, in order to provide uniform means for managing any type of data across a

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<sup>3</sup> Examiner Notes: The schema mapping module is accessed and queried by the gateway (column 8,

large global enterprise. The system allows the means to be applied to data residing in a directory service, a simple file system, or a traditional database, resulting in fewer complications.

Regarding Claim 2, the combination of Parvathaneny in view of Van Huben, disclose a method wherein translating the access command to a translated access command further comprises:

modifying the access command by removing a reference to the object property of the object class and by adding to the access command a reference to the schema attribute (column 11, lines 21-36, Van Huben).

Regarding Claim 3, the combination of Parvathaneny in view of Van Huben, disclose a method wherein the step of translating the access command to a translated access command further comprises altering a format of the command to a different format that the repository is capable of processing to grant access to the repository (column 13, lines 5-23, Van Huben).

Regarding Claims 4, 13, and 17, the combination of Parvathaneny in view of Van Huben, disclose a method wherein the step of translating the access command to a translated access command further comprises employing an

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lines 10-12, Parvathaneny), which discloses the limitation of "reading a mapping, accessible to the interface".



application programming interface to process an intermediate command derived from the access command (column 6, lines 28-36, Van Huben).

Regarding Claims 6 and 18, the combination of Parvathaneny in view of Van Huben, disclose a method wherein the repository is an LDAP-compliant directory service (Fig.1, item 15, Van Huben), and wherein the schema is in accordance with the LDAP protocol (column 14, lines 7-11, Van Huben).

Regarding Claim 9, the combination of Parvathaneny in view of Van Huben, disclose the method further comprising:

receiving a response from the repository pursuant to transmitting the translated access command to the repository, wherein the received response identifies the schema class and schema attribute (column 9, lines 46-61, Parvathaneny);

translating the received response to a translated response, wherein the translated response identifies the object class and object property in a format specific to the application and that is different than a format utilized by the repository to define the corresponding schema class and schema attribute (column 5, lines 21-42 and column 9, lines 46-52, Parvathaneny); and

fulfilling the access command received from the application by transmitting the translated response to the application (column 5, lines 21-31, Parvathaneny).

Regarding Claims 10,11, and 16, the combination of Parvathaneny in view of Van Huben, disclose a computer-readable medium having stored thereon computer-executable instructions (column 5, lines 43-66, Parvathaneny).

Regarding Claim 15, the combination of Parvathaneny in view of Van Huben, disclose a method wherein the access command is selected from the group consisting of a read command, a write command, and a search command (column 6, lines 22-34, Van Huben).

**9. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parvathaneny (US Patent No. 5,829,006) filed July 21, 1997, in view of Van Huben (US Patent No. 6,484,177) filed January 13, 2000, and further in view of Ferguson (US Patent No. 6,016,499) filed July 21, 1997.**

Regarding Claim 7, the combination of Parvathaneny in view of Van Huben, disclose all of the claimed subject matter as stated above. However, the combination of Parvathaneny in view of Van Huben, are silent with respect to the repository being an LDAP-non-compliant<sup>4</sup> repository, and wherein the schema, including the schema class and the schema attribute are implicit within the non-compliant repository. On the other hand, Ferguson discloses the repository being

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<sup>4</sup> Examiner interprets non-compliant to mean "not", therefore by the database being ODBC-compliant it is not an LDAP rendering it non-compliant.

an LDAP-non-compliant<sup>5</sup> repository (column 8, lines 44-48, Ferguson), and wherein the schema, including the schema class and the schema attribute are implicit within the non-compliant repository (column 7, lines 15-17, Ferguson). It would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate Ferguson's teachings into the Parvathaneny in view of Van Huben system. A skilled artisan would have been motivated to combine as suggested by Ferguson at column 4, lines 59-67, in order to provide a system for making information in a directory service repository accessible to tools that were designed and written to access relational databases and also to provide a system which make repository information accessible to tools that use SQL or conform with ODBC. As a result, allowing the system to obtain a multitude of information throughout a broad spectrum of interface standards.

Regarding Claim 8 the combination of Parvathaneny in view of Van Huben, and further in view of Ferguson, disclose a method comprising extracting the implicit schema and recording it as an express schema (column 7, lines 15-17, Ferguson).

### ***Response to Arguments***

Applicant's arguments with respect to newly amended independent claims 1 and 16 have been considered but are moot in view of the new ground(s) of rejection.

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<sup>5</sup> Examiner interprets non-compliant to mean "not", therefore by the database being ODBC-compliant it is

*Applicant argues, Chang fails to disclose a "mapping tool that is configured for inserting metadata within a definition of the selected object class, wherein the metadata associates the selected object property with the selected schema attribute".*

Examiner respectfully disagrees. As stated in the office action, Chang discloses at column 14, lines 30-53; wherein "each data type in the relational schema must map to an equivalent data type in the object schema" and "the Schema Mapper also maps the table data types to attribute data types, wherein a default SQL to ODL data type mapping is provided, shown at Table 5" (see columns 42-43, Chang). The user has the option to override the default data type conversion for any table to class data type. The user can click on the default data type to display a listbox of allowable data types from which the user may select by clicking to override the default data type. The allowable selectable mappings are specified in Table 4 (see column 42, Chang). Examiner interprets the user selectable data type information to correspond with the limitation of inserting metadata. Therefore, examiner believes "a mapping tool that is configured for inserting metadata within a definition of the selected object class, wherein the metadata associates the selected object property with the selected schema attribute" has been fully disclosed by Chang.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

***Points of Contact***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chelcie Daye whose telephone number is 571-272-3891. The examiner can normally be reached on M-F, 7:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached on 571-272-4080. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chelcie Daye  
Patent Examiner  
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March 14, 2007

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